

REMARKS

In the above Office Action, the Examiner refused to consider JP 28-315 and CH 470922 because they “do not have accompanying translations.” However, in the Statements where these documents were filed, it was noted that JP 28-315 was cited in the International Search Report and CH 470922 in a Search Report of the corresponding European application, copies of both of which were submitted in English with the Statements. M.P.E.P. § 609.04(a)III, specifically states that:

Where the information listed is not in the English language, but was cited in a search report or other action by a foreign patent office in a counterpart foreign application the requirement for a concise explanation of relevance can be satisfied by submitting an English-language version of the search report or action which indicates the degree of relevance found by the foreign office. This may be an explanation of which portion of the reference is particularly relevant, to which claims it applies, or merely an “X”, “Y”, or “A” indication on a search report.

A Form PTO/SB/08 listing these two documents is attached for the Examiner to indicate he considered them. For copies of the documents and the English-language Search Reports, see the Information Disclosure Statement filed November 20, 2006 for JP 28-315 and that filed August 29, 2007 for CH 470922.

In the Office Action, the Examiner rejected claims 1-7 and 12 under 35 U.S.C. § 103(a) for being obvious over Applicants’ admitted prior art (AAPA) in view of Hitoshi (JP 53-071627). Claims 1, 12 and 13 were also rejected for being obvious over AAPA in view of U.S. Patent No. 4,150,704 to Hoult.

In response, Applicants have amended claim 1 to recite that the foam formed in the first step of the process is “such that it is formed as a whipped cream mixture.” Support for this can be found in the last sentence of the second paragraph on page 6 of

the specification. None of the cited references disclose this feature of the claimed invention.

In the present invention, one or more kinds of an aggregate granular material, one or more kinds of a water-soluble binder, and water, are mixed together to form a mixture of the aggregate granular material. The mixture is then stirred to cause it to foam such that it is formed as a whipped cream mixture. The whipped cream mixture is charged into a molding space to harden it therein, so as to make a mold.

For example, if the resulting mold is about 40 mm thick, more than 50% of a water-soluble binder is aggregated in the surface layer between the surface of the mold and a depth of 10 mm therefrom. Further, the distribution of the foam in the aggregate granular material and the moisture content of the binder are concentrated at the center portion of the mold. After the moisture evaporates, the center portion of the mold thus has a low density of the charged aggregate granular material (see the third paragraph on page 6, of the specification). Further, with a temperature such as 720°C of a molten metal, the binder can be volatilized or dissolved such that the mold can be readily removed from the corresponding cast article in the following step (see the penultimate paragraph on page 9 of the specification).

Hitachi teaches a method for making a mold where a water solution of a polyvinyl alcohol is added to sand; drying it to form a coating layer of the polyvinyl alcohol on the surface of each sand particle; mixing the sand in which the respective sand particles are coated with the polyvinyl alcohol and water, or an organic colloid solution, or an inorganic colloid solution, to form a material for making a mold; and making a mold using the material.

Hoult teaches a method for making a mold using a mixture of particulate material, water, and a starch. Hoult also teaches freezing the mold and then pouring a molten metal into it.

The AAPA teaches a method for making a mold where one or more kinds of aggregate granular material are mixed with one or more kinds of a binder to obtain a mixture; filling a molding space with the mixture; and heating the filled mixture to harden it so as to form a mold.

However, none of these references either alone or in combination teach “mixing one or more kinds of an aggregate granular material, one or more kinds of a water-soluble binder, and water, to form a mixture of said aggregate granular material, and stirring said mixture to cause it to foam such that it is formed as a whipped cream mixture.”

Accordingly, since an essential feature of Applicants’ invention is not taught in any of the cited prior art and it leads to advantages as discussed above, it is believed that neither claim 1 nor claims 2-7, 12 and 13 dependent therefrom can be considered obvious over these references. Withdrawal of the rejections of these claims is therefore requested.

It is believed claims 1-7, 12 and 13 are now in condition or allowance. If so, it is requested that “withdrawn” claims 8-11 be reinstated since they all depend from claim 1

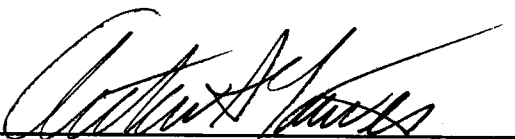
In view of the foregoing amendments and remarks, Applicants respectfully request reconsideration and reexamination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to Deposit Account 06-0916.

Respectfully submitted,

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Dated: September 21, 2009

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Attachments: one page Form PTO/SB/08

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